VIRGINIA CRIMINAL SENTENCING COMMISSION

Study of Larceny and Fraud Guidelines and Risk Assessment – Research Design

June 9, 2025

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**Study of Larceny and Fraud
Guidelines – Research Design**

Larceny and Fraud Analysis – Research Plan

❖ Goal: reanalyze Larceny and Fraud cases and revise the Larceny and Fraud worksheets.

❖ Eligible cases drawn from FY2021-FY2025 Sentencing Guidelines database.

❖ Exclusions:
  ➢ Cases with primary offense date prior to July 1, 2020. These may not meet the current $1,000 felony threshold.
  ➢ Petit larceny 3rd/Subs. cases – felony eliminated by the 2021 General Assembly.

❖ 8,389 remaining cases eligible for study – 32.8% fraud, 67.2% larceny.

❖ Supplemental criminal history information to be obtained from Virginia State Police and, if approved, from the FBI.

Stratified Random Sample – Fraud Cases

Primary Offense Group	Number of Cases
Fraud – Take All Cases*	344
Fraud – 10 Year Maximum	270
Fraud – 20 Year Maximum	270
Total Fraud Cases	884

*Many felony Fraud offenses are not often the primary offense in a sentencing event. For example, possession of forged bank notes or coins – 10 or more (§18.2-173, FRD-2517-F6) was the primary offense in only 13 sentencing events.

For offenses with ≤ 30 cases, we are selecting ALL available cases.

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Stratified Random Sample – Grand Larceny Cases

Primary Offense Group	Number of Cases
Grand Larceny – Property	150
Grand Larceny – Person	150
Grand Larceny – Firearm	150
Grand Larceny – Auto	150
Total Grand Larceny Cases	600

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Stratified Random Sample – Other Larceny Cases

Primary Offense Group	Number of Cases
Larceny – Take All Cases*	213
Larceny – 5 Year Max (Unauthorized Use)	150
Larceny – Embezzlement	150
Larceny – Stolen Property/Shoplift	150
Total Other Larceny Cases	663

*Many felony Larceny offenses are not often the primary offense in a sentencing event. For example, larceny of bank notes, checks, or any book of accounts – value ≥ $1,000 (§18.2-98, LAR-2334-F9) was the primary offense in only 15 sentencing events.

For offenses with ≤ 30 cases, we are selecting ALL available cases.

Stratified Random Sample – Total Cases

Primary Offense Group	Number of Cases	Percent of Cases
Fraud Cases	884	41.2%
Larceny Cases	1,263	58.8%
Total Cases	2,147	100.0%

Sample has a somewhat higher proportion of fraud cases than the eligible population of cases (41.2% vs 32.8%). We under-sampled grand larceny cases and over-sampled fraud and other larceny cases. This was done to make sure that an adequate number of fraud and non-grand larceny cases were included in the sample.

A weighted analysis can be conducted so that the sample of cases will more accurately reflect the true proportions of larceny and fraud cases in the eligible population of cases.

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Larceny and Fraud Analysis – Research Plan

❖ Programming to link criminal history data to Guidelines data for corresponding cases and to construct prior record variables.

❖ Exploratory work – crosstabs, descriptive statistics, etc.

❖ Logistic regression (for No Incarceration/Incarceration decision) and OLS regression (for Length of Incarceration decision) to identify which factors significantly affect sentencing outcomes.

❖ Translate factor effects into scores on the Larceny and Fraud worksheets.

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Study of Risk Assessment – Research Design

§ 17.1-803

5. Develop an offender risk assessment instrument for use in all felony cases, based on a study of Virginia felons, that will be predictive of the relative risk that a felon will become a threat to public safety.

6. Apply the risk assessment instrument to offenders convicted of any felony that is not specified in (i) subdivision 1, 2 or 3 of subsection A of § 17.1-805 or (ii) subsection C of § 17.1-805 under the discretionary sentencing guidelines, and shall determine, on the basis of such assessment and with due regard for public safety needs, the feasibility of achieving the goal of placing **25 percent** of such offenders in one of the alternative sanctions listed in subdivision 4. If the Commission so determines that achieving the 25 percent or a higher percentage goal is feasible, it shall incorporate such goal into the discretionary sentencing guidelines, to become effective on January 1, 1996. If the Commission so determines that achieving the goal is not feasible, the Commission shall report that determination to the General Assembly, the Governor and the Chief Justice of the Supreme Court of Virginia on or before December 1, 1995, and shall make such recommendations as it deems appropriate.

Nonviolent Offender Risk Assessment Background

- Purpose of Nonviolent Offender Risk Assessment

  - Better predict a defendant's future risk of crimes.

  - Identify low-risk defendants to be recommended for the alternative punishment.

- Developing Risk Assessment Instruments

  - Based on the historical data: the likelihood (risk) of recidivism during a certain period of time is estimated.

  - Follow-up study to examine whether a defendant reoffended/convicted again after the initial conviction of Larceny/Fraud felony offense – at least three years is needed.
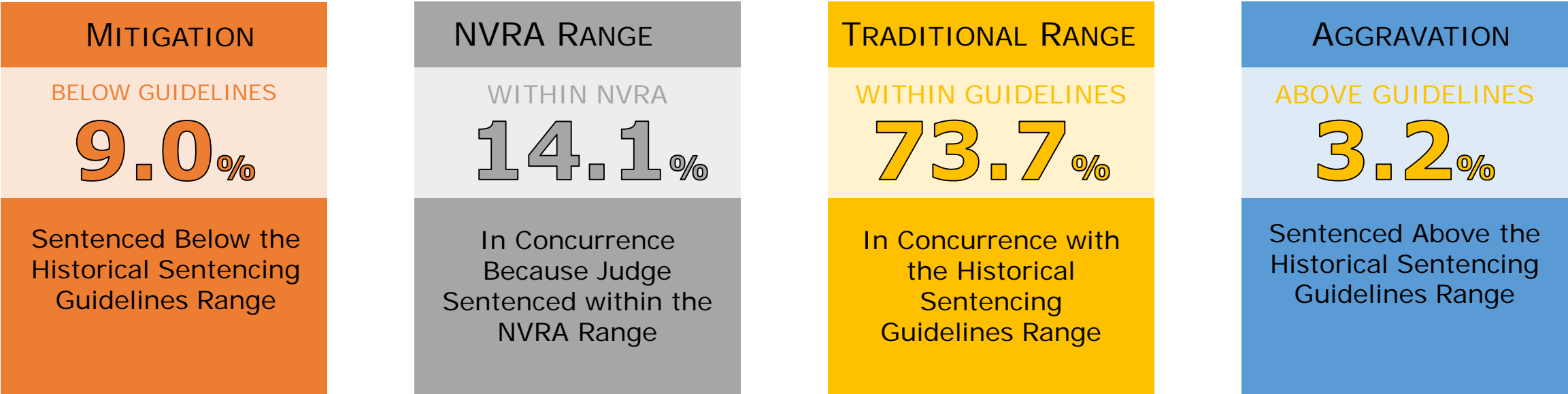
BACKGROUND: LARCENY

RISK ASSESSMENT FY2021 – FY2024

Concurrence rates for Nonviolent Offenders Eligible for Risk Assessment. Excludes cases that have violent prior or current offenses, cases recommended for probation or no effective time, and cases with mandatory minimums. Any cases missing information needed to properly identify the case or score the Guidelines or Risk Assessment worksheet were excluded.
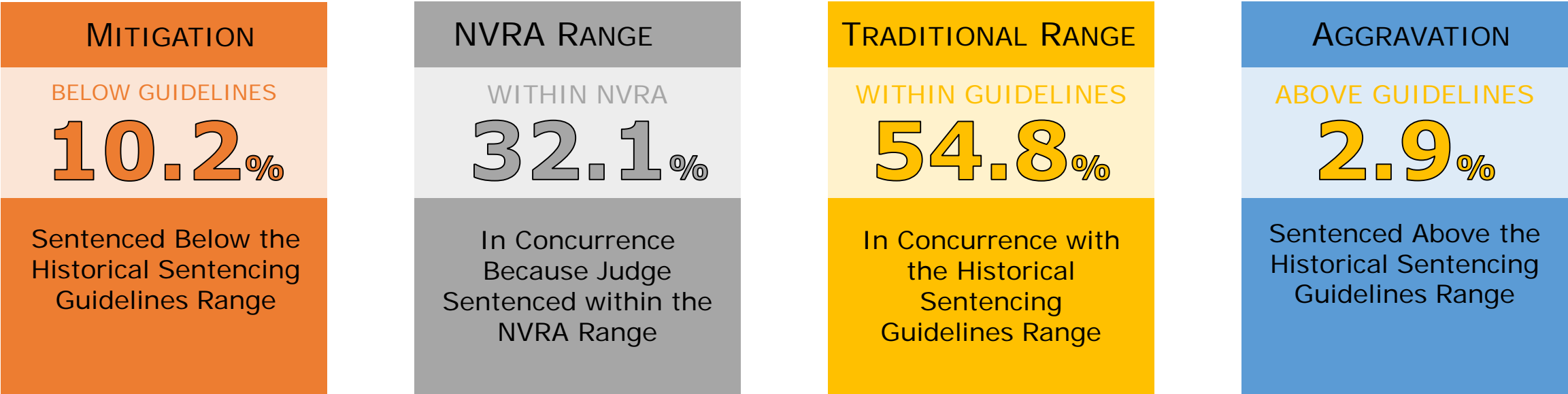
CONCURRENCE – WITHIN GUIDELINES

MITIGATION	NVRA RANGE	TRADITIONAL RANGE	AGGRAVATION
BELOW GUIDELINES	WITHIN NVRA	WITHIN GUIDELINES	ABOVE GUIDELINES
9.0%	**14.1%**	**73.7%**	**3.2%**
Sentenced Below the Historical Sentencing Guidelines Range	In Concurrence Because Judge Sentenced within the NVRA Range	In Concurrence with the Historical Sentencing Guidelines Range	Sentenced Above the Historical Sentencing Guidelines Range

OVERALL CONCURRENCE – 87.8%
All Cases: (78.6%)

BACKGROUND: FRAUD

RISK ASSESSMENT FY2021 – FY2024

Concurrence rates for Nonviolent Offenders Eligible for Risk Assessment. Excludes cases that have violent prior or current offenses, cases recommended for probation or no effective time, and cases with mandatory minimums. Any cases missing information needed to properly identify the case or score the Guidelines or Risk Assessment worksheet were excluded.

CONCURRENCE – WITHIN GUIDELINES

MITIGATION	NVRA RANGE	TRADITIONAL RANGE	AGGRAVATION
BELOW GUIDELINES	WITHIN NVRA	WITHIN GUIDELINES	ABOVE GUIDELINES
10.2%	**32.1%**	**54.8%**	**2.9%**
Sentenced Below the Historical Sentencing Guidelines Range	In Concurrence Because Judge Sentenced within the NVRA Range	In Concurrence with the Historical Sentencing Guidelines Range	Sentenced Above the Historical Sentencing Guidelines Range

OVERALL CONCURRENCE – 86.9%
All Cases: (78.7%)

Nonviolent Offender Risk Assessment Background

- Previous Studies by the Commission

    - Validation Study (2001) – Larceny, Fraud, and Drug Offenders

        - Sample Size: 668

        - Measure of Recidivism: Felony Conviction.

        - Recidivism Rate: 31.7%

        - Length of Follow-up: 3+ years

    - Re-Validation Study (2010-2012) - Larceny, Fraud, and Drug Offenders

        - Sample Size: 1,509

        - Measure of Recidivism: Felony Conviction.

        - Recidivism Rate: 30.3%

        - Length of Follow-up: 3+ years

Nonviolent Offender Risk Assessment Background

- Need for revisiting the Nonviolent Offender Risk Assessment (NVRA) instrument

  - Since the last re-validation study:

    - Some Fraud/Larceny felony offenses are based on the felony threshold: Threshold changed in 2018 ($250 to $500) and 2020 ($500 to $1,000).

    - COVID-19 pandemic: Court operations and judicial practices impacted by it.

    - New patterns/practices may have evolved.

Research Design: Case Selection

- Case selection approach

  - Identify the Larceny/Fraud offenders from the data as of today.

  - Then, match the identified offenders to offenders from the data several years ago who share very similar characteristics with current offenders.

  - This approach makes it possible for the follow-up study while reflecting the cohort population as of today.

- Case selection approach:
    - Matching current Larceny/Fraud offenders to the offenders several years ago by using Propensity Score Matching.

- Propensity Score Matching (PSM)
    - Statistical approach to match/pair individuals in the current group (that is, Larceny/Fraud offenders in the current data) with the ones not in the current group (Larceny/Fraud offenders from the data several years ago) but whose characteristics otherwise indicate the high likelihood of being in the current group.
        - The likelihood of being in the current group is calculated as the propensity score.
    - Individuals with very similar propensity score are paired.

Research Design: Case Selection

- The cohort from FY2022-2024 Guidelines Data (Larceny/Fraud Offenders)

  - Certain individuals were excluded:

    - Ineligibility criteria: Recommended for Probation/No Incarceration, current or prior violent offense, a current offense carries a mandatory minimum term, a current offense occurred while in a state-responsible facility.

    - Excluded: offenders with the primary offenses of 3rd or subsequent petit larceny offenses (18.2-103 or 18.2-104).

    - If any information used for PSM is missing, the offender was excluded from the procedure.

- The candidate offenders from FY2015 – FY2018 Data (to be matched)

  - Same as above

  - Plus: For Larceny/Fraud offenders whose primary offense is based on the felony threshold amount, only offenders for whom the ordered restitution amount was equal to/more than $1,000 were included.

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Research Design: Case Selection

- The model for PSM matching

  - 1:1 matching without replacement: if there are more than one possible matches, select the one with closest proximity given the propensity score.

  - Inputs considered for computing propensity score:

    - Current NV Risk assessment elements: Gender, Age, legally restrained, prior felony convictions, prior incarcerations, and NV recommendation.

    - Other inputs included: Concurrence with Guidelines (both dispositional and durational), effective sentence terms, trial type (jury, guilty plea, bench, etc.), primary offense (based on VCC), and whether primary offense is based on the felony threshold amount.

Research Design: Case Selection

	FY2022-FY2024 Larceny/Fraud Offenders
Total NVRA Eligible Offenders	4,620
Okay for Analysis (e.g., risk assessment worksheet submitted, no errors affecting concurrence calculations)	3,124
Other Exclusion Criteria before PSM (e.g., excluding third/subq petit larceny felony offense)	2,865
Matched Cohort (FY2022-FY2024) based on PSM (excluded cases with missing values in any variables used in PSM model).	1,775

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Research Design: Percent/Mean Comparison in Matched Pairs

	FY2022-FY2024 Matched Larceny/Fraud Offenders (1,775)	FY2015-FY2018 Matched Larceny/Fraud Offenders –Similar Offender for Follow-up study (1,775)
Larceny Offenders (v. Fraud) – VCC prefix of LAR	65%	63%
Primary Offense based on Felony Threshold	55%	55%
Primary Offense (Grand Larceny >=$1,000, LAR2359)	26%	25.7%
Primary Offense (Grand Larceny Auto Theft, LAR2404)	13%	13%

Research Design: Percent/Mean Comparison in Matched Pairs

	FY2022-FY2024 Matched Larceny/Fraud Offenders (1,775)	FY2015-FY2018 Matched Larceny/Fraud Offenders –Similar Offender for Follow-up study (1,775)
Primary Offense (Embezzlement >=$1,000, LAR2707)	13%	13%
Primary Offense (Theft of Credit Card Numbers, FRD2360)	10%	10%
Active Sentence (in months)	9.45	10.1
Male	71%	71%
Offender Age (average)	34	34

Research Design: Case Selection

- Additional Notes

  - Tested whether matched offenders in PSM are different from all NVRA-eligible Larceny/Fraud offenders in FY2022-FY2024 SG Data: The statistical test confirms that they are not different.

  - Small percentage of the matched cohort (from FY2022-FY2024) has the primary offense based on felony threshold, with offense date prior to July 2020 (when felony theft threshold was $500) – nearly all of these offenders had a known restitution amount (ordered by court) of at least $1,000. In addition, all matched offenders (from FY2015-FY2018) still have the ordered restitution amount of at least $1,000.

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Next Steps

- Obtain complete criminal history records for matched offenders.

- Conduct multivariate regression analyses to identify significant legal and extra-legal factors associated with felony recidivism.

  - New offense committed within three years of return to the community that ultimately resulted in a felony conviction.

- Based on the results, create a risk assessment worksheet.

  - Scores will reflect the factors (and the relative importance of factors to one another) found in the statistical model.

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